IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): ~~Method~~ A method for automated location dependent probabilistic tropical cyclone forecast, ~~whereas~~ in which data records of weather events are generated and location dependent probability values for specific weather conditions associated with the tropical cyclone are determined, ~~characterised,~~ comprising:

~~in that~~ assigning data records representative of an historical track of a weather event ~~are assigned~~ to a year of occurrence of said weather event and ~~are saved~~ saving the data records on a memory module of a calculating unit, said data records including a plurality of points representative of geographical positions and/or intensity of the event along the historical track[[,]];

~~in that~~ generating a plurality of new data records representative of alternative tracks ~~are generated~~ for each historical track ~~by means of~~ using a [[fist]] first MonteCarlo-module, wherein points of said new data records are generated from said points along the historical track by a dependent sampling process[[,]];

~~in that~~ generating a grid over a geographical area of interest ~~is established by means of~~ using the calculation unit, said area including at least a portion of the plurality of historical tracks, and [[a]] generating an intensity climatology for selected cells in the grid ~~is generated,~~ based upon the intensity data associated with at least some of the plurality of points along the historical tracks located within said selected grid cells[[,]];

~~in that~~ generating for each of said alternative tracks one or more new intensity data ~~are generated by means of~~ using a second MonteCarlo-module, wherein the one or more new intensity data of the new data records of said alternative tracks are generated from the intensity data associated with at least some of the plurality of points along the historical tracks by a MonteCarlo sampling process[[,]];

~~in that~~ generating a distribution for a definable time period of the data records of the

historical tracks ~~is generates by means of~~ using a scaling table classifying the weather events

by intensity and/or year of occurrence, and said distribution of said historical tracks are

reproduced by a filtering module within the new or accumulated data records according to

their assigned year[[,]]; and

~~in that~~ generating a wind field of each data record ~~is generated~~ based on a definable

wind field profile, and assigning a probability ~~is assigned~~ by [[a]] an interpolation-module to

each point in said grid[[,]] giving the probability of the occurrence of a specific wind strength

at a given geographical location and time.

Claim 2 (Original): Method according to claim 1, characterized in, that for the

weather events tropical cyclone events, in particular hurricane events or typhoon events or

tropical storm events are used.

Claim 3 (Previously Presented): Method according to claim 1, characterized in, that

said data representative of intensity comprises atmospheric pressure data associated with at

least some of the plurality of points along the historical track, said atmospheric pressure data

defining an historical pressure profile of the historical track.

Claim 4 (Original): Method according to claim 3, characterized in, that the intensity

climatology comprises a pressure climatology.

Claim 5 (Original): Method according to claim 4, characterized in, that the pressure

climatology for at least one of the selected cells is a pressure distribution function.

Claim 6 (Previously Presented): Method according to claim 3, characterized in, that said atmospheric pressure data includes an absolute pressure (P) and a derivative of absolute pressure with respect to time (dP/dT).

Claim 7 (Previously Presented): Method according to claim 4, characterized in, that the pressure climatology for a selected cell in the grid is established from at least one of the atmospheric pressure data associated with the selected cell and the atmospheric pressure data associated with one or more cells adjacent the selected cell.

Claim 8 (Previously Presented): Method according to claim 4, characterized in, that the pressure climatology for a selected cell is established from a weighted averaging of pressure data associated with the selected cell and pressure data associated with one or more cells adjacent a selected cell.

Claim 9 (Previously Presented): Method according to claim 4, characterized in, that each cell in the grid is assigned a land/sea value, and wherein pressure data associated with an adjacent cell is used to establish the pressure climatology of a selected cell only if the adjacent cell and the selected cell have the same land/sea value.

Claim 10 (Previously Presented): Method according to claim 4, characterized in, that one or more alternative pressure profiles for one or more of the historical tracks using the pressure climatology for the selected cells in the grid are generated.

Claim 11 (Previously Presented): Method according to claim 3, characterized in, that one or more pressure profiles for one or more of the alternative tracks are generated.

Claim 12 (Previously Presented): Method according to claim 4, characterized in, that one or more alternative pressure profiles for one or more of the alternative tracks using the pressure climatology for the selected cells of the grid are generated.

Claim 13 (Previously Presented): Method according to claim 3, characterized in, that at least one of the alternative pressure profiles for the historical tracks, the pressure profiles for the alternative tracks, and the alternative pressure profiles for the alternative tracks are modified based, at least in part, on the historical pressure profile along the historical track of the associated weather event.

Claim 14 (Previously Presented): Method according to claim 1, characterized in, that said dependent sampling process is a directed random walk process.

Claim 15 (Previously Presented): Method according to claim 1, characterized in, that at least some of the plurality of alternative tracks have starting points that differ from a starting point of the historical track upon which said alternative tracks are based.

Claim.16 (Previously Presented): Method according to claim 1, characterized in, that data representative of alternate tracks based on said historical track are generated by:

i) generating a series of random tuples (x_r, y_r) for a historical point (x,y) of the historical track;

ii) calculating a sum of random deviations (x', y') of the random tuples along the historical track; and

iii) adding the sum of random deviations (x',y') to the historical point (x,y) of the historical track to produce alternative points along the alternative tracks.

Claim 17 (Previously Presented): Method according to claim 1, characterized in, that a longitude and a latitude are assigned to said data representative of a track of an historical weather event whereas said longitude and said latitude define each of a plurality of points along said track.

Claim 18 (Currently Amended): Method according to claim 1, characterized in, that said data records include data records representative of a plurality of historic tracks, and said new data records ~~include~~ include data records representative a plurality of alternative tracks for more than one of said plurality of historical tracks.

Claim 19 (Previously Presented): Method according to claim 1, characterized in, that said data representative of an historical track comprises at least:

i) longitude and latitude of a plurality of points representative of the historical track;

ii) an azimuth angle for at least some of the points along the historical track;

iii) celerity for at least some of the points along the historical track;

iv) a rate of change of azimuth angle for at least some of the points along the historical track; and

v) a rate of change of celerity for at least some of the points along the historical track.

Claim 20 (Previously Presented): Method according to claim 1, characterized in, that at least one subset of the data representative of the alternative tracks for use in the probabilistic data set is selected.

Claim 21 (Previously Presented): Method according to claim 1, characterized in, that a variance of said alternative points of said data records representative of alternative tracks from a respective historical point in accordance with one or more physical laws is limited.

Claim 22 (Previously Presented): Method according to claim 1, characterized in, that said data records comprise data representative of a plurality of historical tracks and data representative of atmospheric pressure associated with at least some of the plurality of points along the historical tracks, said atmospheric data defining historical pressure profiles of the historical tracks, and that said new data records comprise a plurality of alternative tracks for more than one of said plurality of historical tracks, whereas:

i) One or more alternative pressure profiles for one or more of the historical tracks are generated;

ii) One or more pressure profiles for one or more of the alternative tracks are generated; and

iii) One or more alternative pressure profiles for one or more of the alternative tracks are generated.

Claim 23 (Original): Method according to claim 22, characterized in, that at least one subset of data from the data representative of the historical tracks is extracted, the alternative tracks, and the pressure profiles, based on climatological conditions for a selected time period.

Claim 24 (Previously Presented): Method according to claim 3, characterized in that a plurality of alternative pressure profiles associated with the track of the historical weather event are generated.

Claim 25 (Original): Method according to claim 24, characterized in that a plurality of alternative pressure profiles is generated by means of the Monte-Carlo module by:

(i) Identifying a point of occurrence of an absolute pressure minimum along the track of the historical weather event;

(ii) Selecting an alternative pressure value at the point identified in step (i);

(iii) Adjusting pressure values at a plurality of other points along the track of the historical weather event, in accordance with the selected alternative pressure value, to create an alternative pressure profile; and

(iv) Repeating steps (i), (ii), and (iii) to produce a plurality of alternative pressure profiles associated with the track of the historical weather event.

Claim 26 (Original): Method according to claim 24, characterized in that data representative of a plurality of alternative tracks are generated based on said track of the historical weather event, said data including a plurality of alternative points representative of geographical positions along said alternative tracks.

Claim 27 (Original): Method according to claim 26, characterized in that a plurality of alternative pressure profiles associated with at least some of said plurality of alternative tracks are generated.

Claim 28 (Original): Method according to claim 27, characterized in that said plurality of alternative pressure profiles associated with said plurality of alternative tracks are generated by:

(i) Identifying a point of occurrence of an absolute pressure minimum along one of said alternative tracks;

(ii) Selecting an alternative pressure value at the point identified in step (d);

(iii) Adjusting pressure values at a plurality of other points along said alternative track, in accordance with the selected alternative pressure value, to create an alternative pressure profile; and

(iv) Repeating steps (i), (ii), and (iii) to produce a plurality of alternative pressure profiles associated with said plurality of alternative tracks.

Claim 29 (Original): Method according to claim 28, characterized in that a plurality of alternative pressure profiles associated with at least some of the plurality of alternative tracks are generated by:

(i) Identifying a pressure value at a first position along the historical track, and setting a pressure value at a corresponding position along an alternative track equal to the identified pressure value;

(ii) Determining a percentile of pressure change along the historical track between said first location and a second location;

(iii) Varying the percentile by a selected amount;

(iv) Determining a pressure value at a second location of the alternative track based upon the varied percentile;

(v) Repeating steps (i), (ii), (iii), and (iv) for additional points along the alternative track to create an alternative pressure profile associated with the alternative track; and

(vi) Repeating steps (i), (ii), (iii), (iv), and (v) to create pressure profiles for other ones

of the plurality of alternative tracks.

Claim 30 (Original): Method according to claim 28, characterized in that the

percentile is varied by approximately plus/minus fifteen percent.

Claim 31 (Original): Method according to claim 29, characterized in additional

alternative pressure profiles are generated by means of the Monte-Carlo module by:

(i) selecting a different position along the historical track as a starting point, and/or

(ii) varying the percentile by a different amount.

Claim 32 (Previously Presented): Method according to claim 1, characterized in, that

as basis for the scaling table the Saffir-Simpson Hurricane Scale is used.

Claim 33 (Currently Amended): ~~System~~ A system for automated location dependent

tropical cyclone forecast~~, by means of~~ in which data records of weather events are generated

and location dependent probability values for specific weather conditions associated with the

tropical cyclone are determined, ~~characterised,~~ comprising:

~~in that the system comprises~~ a calculation module for assigning data records

representative of an historical track of a weather event to a year of occurrence of said weather

event and a memory module for saving the data records onto, said data records including a

plurality of points representative of geographical positions and/or intensity of the event along

the historical track[[,]];

~~in that the system comprises~~ a MonteCarlo-module for generating a plurality of new

data records representative of alternative tracks for each historical track, wherein points of

said new data records are generated from said points along the historical track by a dependent

sampling process[[,]]:

in that the calculation module comprises including means for establishing a grid over

a geographical area of interest, said area including at least a portion of the plurality of

historical tracks, and for generating a intensity climatology for selected cells in the grid,

based upon the intensity data associated with at least some of the plurality of points along the

historical tracks located within said selected grid cells[[,]]:

in that the system comprises a scaling table for generating a distribution for a

definable time period of the data records of the historical tracks, which the scaling table

classifies classifying the weather events by intensity and/or year of occurrence, and a filtering

module for reproducing said distribution of said historical tracks within the new or

accumulated data records according to their assigned year[[,]]; and

in that the system comprises a definable wind field profile for generating a wind field

of each data record, and a interpolation-module for assigning a probability to each point in

said grid, giving the probability of the occurrence of a specific wind strength at a given

geographical location and time.

Claim 34 (Currently Amended): A computer program product which is able to be

loaded in the internal memory of a digital computer and comprises software code sections

with which the steps according to claim 1 are able to be carried out when the product runs on

a computer, the neural networks being able to be generated using software and/or hardware.

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